

# Dermatology for the Internist

A Tantalizing Visual  
Spectacle

Bruce Footit MD

# Goals of this lecture:

- Refamiliarize with some of the more common dermatologic diseases which the general internist faces daily
- Provide visual support to facilitate recognition of common disease
- Create framework for “pattern recognition”

# Psoriasis Vulgaris

## **DEFINITION**

A heritable disorder of the skin characterized by chronic, recurrent, scaling papules and plaques in characteristic sites of the body.

## **MECHANISM**

- Alteration of cell kinetics of keratinocytes
- Shortening of cell cycle from 311 hours to 36 hours
- 28 fold increase in cellular turnover
- Most likely immunologic phenomenon

# Psoriasis Vulgaris

## Subtypes

### Early Onset

- Type I
- Female : Male = 3 : 1
- F = avg. age 16
- M = avg. age 22

### Late Onset

- Type II
- Male : Female = 3 : 1
- Average age both sexes = mid 50's



# Psoriasis Vulgaris

## Epidemiology / History

- ~ Affects 1.5 - 3.0% of the Western World population
- ~ Genetic predisposition
- ~ Arthritis in 20-30%
- ~ Nail involvement in 25%

Lesions triggered by:

- Physical Trauma
- Infection
- Stress
- Drugs

# MANAGEMENT

## Less than 20% Body Surface

- Topical
  - Emollients
  - Calcipotriene
  - Corticosteroids
    - Wide range of choices
    - Short lived response
    - Tolerance
  - Intralesional Steroid Tx

## More than 20% Body Surface

- Systemic Therapies
  - In addition to other agents
  - MTX
  - Hydrea
  - Cyclosporine
  - Inpt management

# PSORIATIC SKIN LESIONS

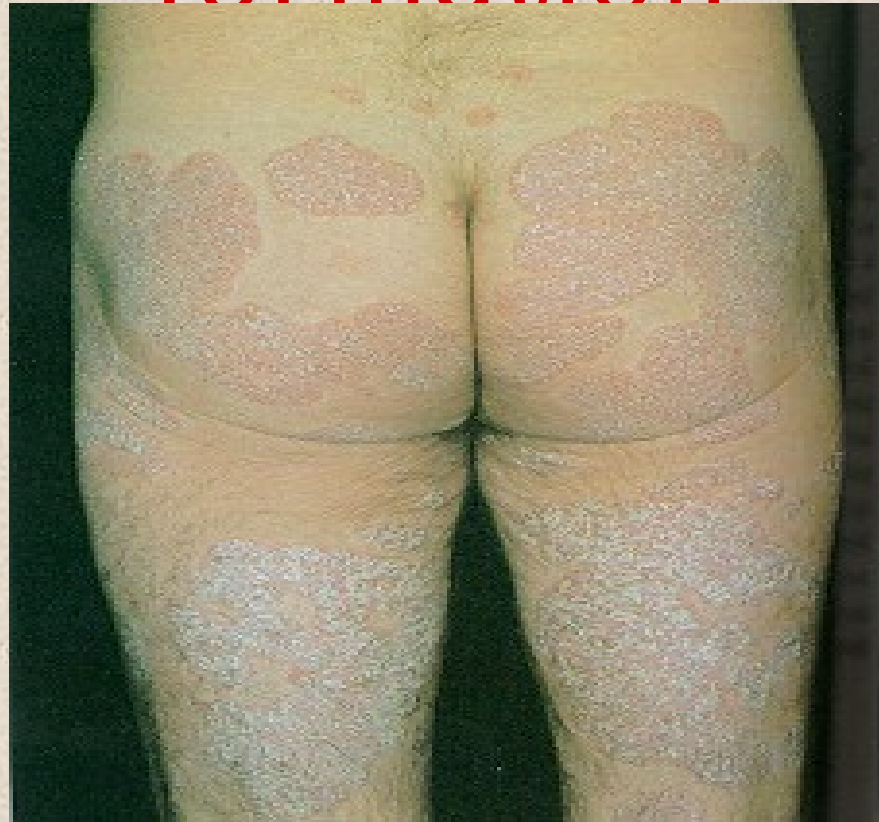
## PHYSICAL EXAM CHARACTERISTICS

# Red / Scaling Papules





# Prominent “Silvery” Scaling with Plaque formation



# Oval Plaques



# Scaling Plaques - Well Circumscribed



# Auspitz's Sign





# Maceration of Epidermis Confined to Intertriginous Areas



# Bilateral lesions (rarely symmetric)



# Koebner's Phenomenon (s/p surgical incision)



# Koebner's Phenomenon (s/p skin graft)





# Elbow Lesions



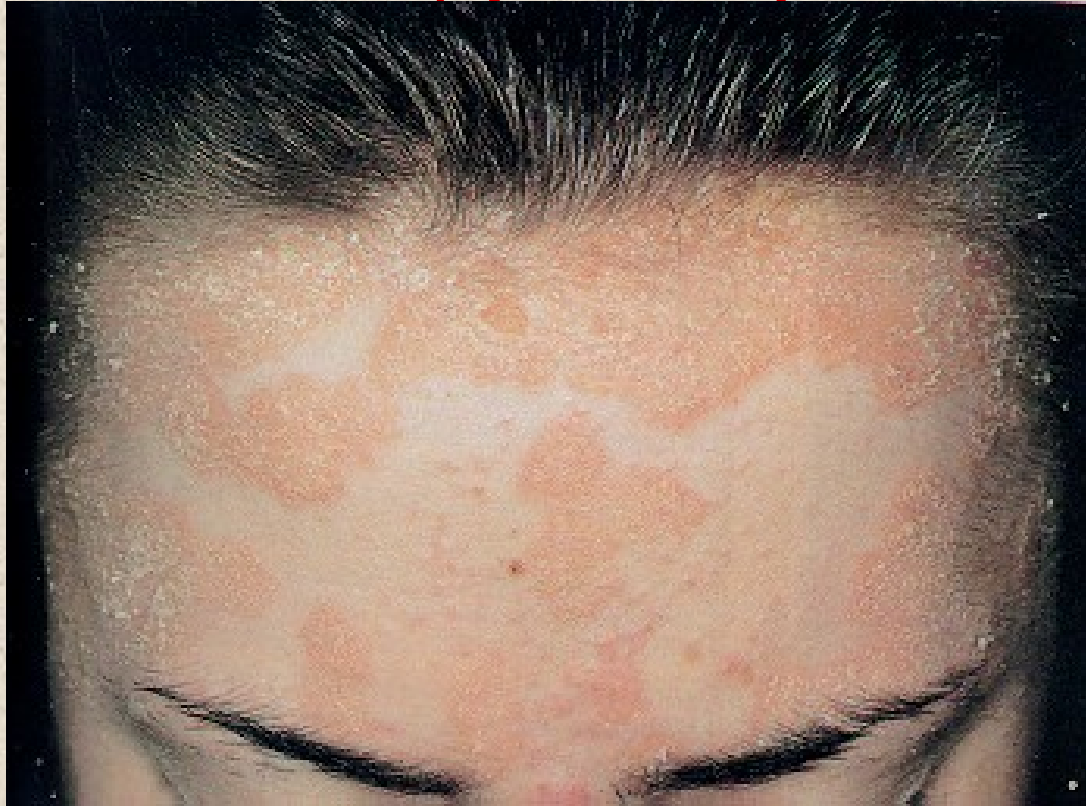
# Elbow Lesion (I think)



# Knee Lesion



# Scalp Lesions Common (extension onto face atypical)





# Scalp Involvement (coexistent Koebner's phenomenon)



# Gluteal Cleft Involvement Can Be Disabling



# PSORIATIC ARTHRITIS FINDINGS

# Radiographic Evidence of Psoriatic Arthritis (Similar to RA with prominent DIP involvement)





# Swollen / Inflamed DIP/PIP Joints of Psoriatic Arthritis



**NAIL  
FINDINGS  
RELATED TO  
CHRONIC  
PSORIASIS**

# Prominent Pitting of Nails



# Pitting / Early Onycholysis





# Pitting / Onycholysis / Chronic Deformity



# “Oil Spot”



# Oil Spot = Pathognomonic Findings of Psoriatic Nail Changes

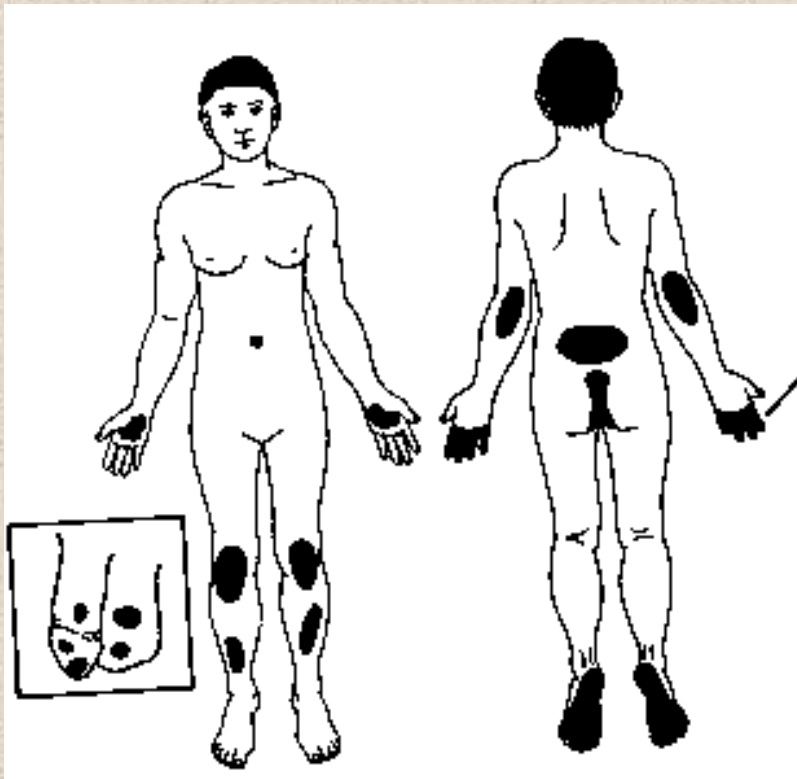


# Chronic Deformities





# Predominant Sites of Involvement



Extensor  
Surfaces

Knees

Elbows

Scalp

Gluteal Cleft

Fingers (joints)

Genitalia

# CARDIOLOGY UPDATE

## NEW DATA FROM TIMI 6 TRIAL

# LARGE HYPODERMIC FOR BOOZE

IN WEEKLY WORLD NEWS MEDICAL UPDATE:

## Doctors shoot patients' hearts full of booze — to cure their heart disease!

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t could  
arshly

Fackelmann

ers today report a  
ach to helping peo  
eased hearts: acti  
g heart attacks w  
ected into the hea  
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results show  
blood flow for patient  
specific heart ailmen  
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he heart's main pumpin  
ber to the rest of the bod  
condition leads to che  
fatigue, is  
difficulty br

NEWS of the radical new procedure of  
injecting ethanol into patients' hearts  
has made headlines nationwide.

HOUSTON — Doctors have found an astonishing new way to treat people with coronary problems: They're shooting the patients' hearts full of booze — to give them heart attacks!

Believe it or not, the technique has been tried on 33 men and women and every one of them improved dramatically.

Incredibly, researchers at Baylor College of Medicine have found that, for some ailing people, the bizarre practice of injecting the heart with alcohol is just what the doctor ordered.

The procedure is used on patients suffering from a ailment called hypertrophic obstructive cardiomyopathy (HOC) — a condition in which a too-thick heart wall impairs blood flow from the heart's main pumping chamber

By RANDY JEFFRIES  
Weekly World News

to the rest of the body.

Symptoms of HOC include chest pain, fatigue, lightheadedness and respiratory problems.

When a type of alcohol called ethanol is shot into the heart wall, it kills some of the excess heart muscle — actually creating a heart attack.

But with the heart wall thinned down, the heart is able to beat with greater efficiency.

Doctors warn that the procedure should only be used in the

most drastic cases, but they're excited about the technique.

A full report on the treatment appears in the current issue of the journal *Circulation*.

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# ECZEMATOUS DISORDERS

Qualities of “ECZEMA”:

ERYTHEMA

SCALING

VESICLES

Dynamic Spectrum Consisting of 3  
Stages



# ACUTE

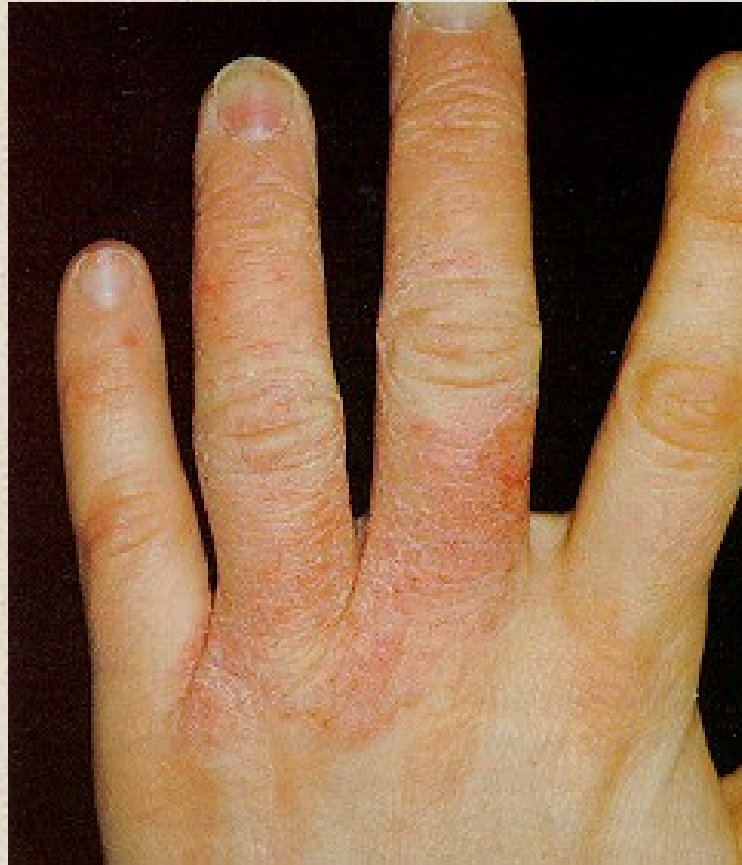
DRYNESS



CHAPPING

# SUBACUTE

DRYNESS



CHAPPING

ERYTHEMA

# SUBACUTE AND CHRONIC

DRYNESS

ERYTHEMA



SPLITTING

CHAPPING

# CHRONIC

DRYNESS

ERYTHEMA



SPLITTING

CHAPPING

VESICLES



# Contact Dermatitis

## Definition

An eczematous dermatitis caused by exposure to substances in the environment. Substances act as irritants and cause acute / subacute / or chronic eczematous inflammation.

# Contact Dermatitis

## Subtypes

### Nonallergic

- Caused by chemical irritants
- Localized immunologic response
- Direct Cytotoxic effect

### Allergic

- Classic Type IV hypersensitivity rxn
- Strong antigens can incite response in 1 wk
- Weak antigens may take months - years to incite response

# Epidemiology / History

- History / History / History
- Do not dismiss chronic exposures (patient may not even realize irritating factor)
- Presenting symptoms / skin findings are extremely variable
- Must always be suspicious of offending agent

# Management

- Identify and remove etiologic agent
- Drainage / not unroofing
- Wet dressings
- Topical Class I corticosteroids
- Systemic steroids (severity of dz a must)



PHYSICAL  
EXAMINATION  
CHARACTERISTICS  
OF  
CONTACT DERMATITIS

# Acute Irritant Dermatitis

(Direct cytotoxicity of cement exposure)  
Well demarcated lesions



# Acute Irritant Exposure

(Nickel Allergy - Most Common Irritant in US)

Notable Erythema / Edema





# Acute Irritant Exposure (Nickel)

Well demarcated w/ erosions + crusts





# Vesicles / Bulla (LINEAR)



# Poison Ivy

(Diffuse erythema/edema/vesicles)



# Acute Allergic Response

(Rubber Cement of sandals)

## Artificial Pattern



# Acute Allergic Response (to spandex bra) Grossly Artificial Pattern





# Chronic Irritant Response

(garage mechanic)

Plaquelike erythema / scaling easily  
confused with many other dermatological  
disease processes



# Chronic Irritant Exposure

(Household Cleanser in Elderly Female)

Superficial desquamation / lichenification



# Chronic Irritant Dermatitis

(Repeated licking / drying cycles of lips)  
Excoriations / erythema



# Chronic Allergic Reaction

(Nickel containing necklace)





# Chronic Allergic Dermatitis

(Rubber band of underwear s/p washing  
with bleach)

Edema / vesiculation / Well Demarcated



# Chronic Allergic Response (Deodorant)

Easily confused with Psoriatic Disease



# Subacute Allergic Exposure

(s/p Benzoin exposure under casts)



# Subacute Allergic Dermatitis

(Perfume Exposure x 1 month)  
Diffuse pattern with scale easily  
misdiagnosed





# Chronic Allergic Dermatitis

(topical lotion containing paraben)

Desquamation stage changes



# Dermatitis Medicamentosa

(Subacute exposure to lanolin based  
ointment)



# NEPHROLOGY UPDATE

By **ARNOLD TURNER** / *Weekly World News*

**PARIS — A kidney patient died when his dialysis machine was accidentally hooked up to a hospital air-conditioning system!**

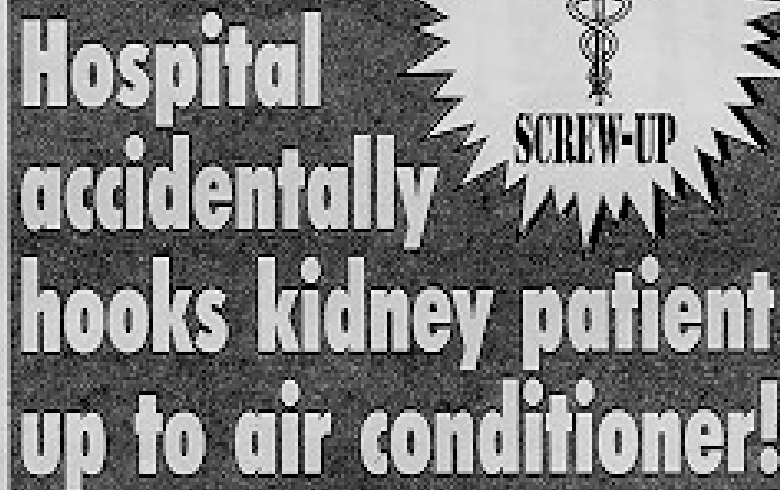
Hospital spokesman Herve Fontaine confirmed that the patient, 22-year-old Guy Hersant, died October 22 when coolant from the air conditioner flowed into the pure water in the kidney dialysis system.

According to Fontaine, the pipes of the air-conditioning system and the dialysis system were mistakenly connected. "A valve was supposed to keep the systems separate but it failed," said Fontaine. "We have taken steps to ensure that this sort of tragedy will never happen again."

But these steps are too little and too late for Hersant's distraught parents, who are threatening to sue the hospital. "It's outrageous. My son went to the

hospital to receive treatment and he has his life taken from him in this way," said his grieving mother Leeza. "How could a hospital be so incompetent?"

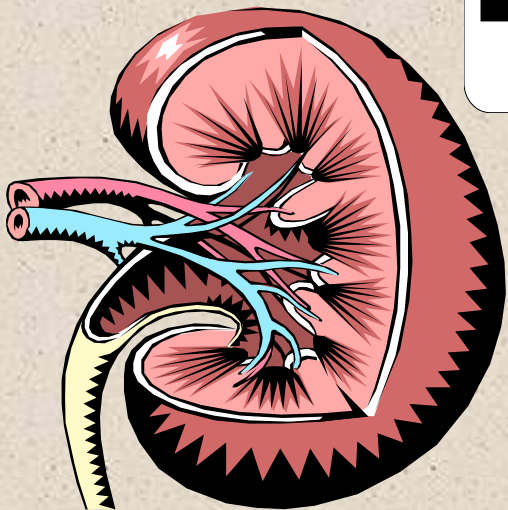
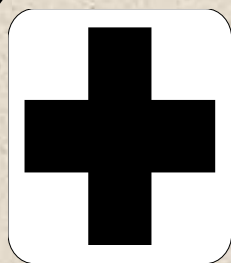
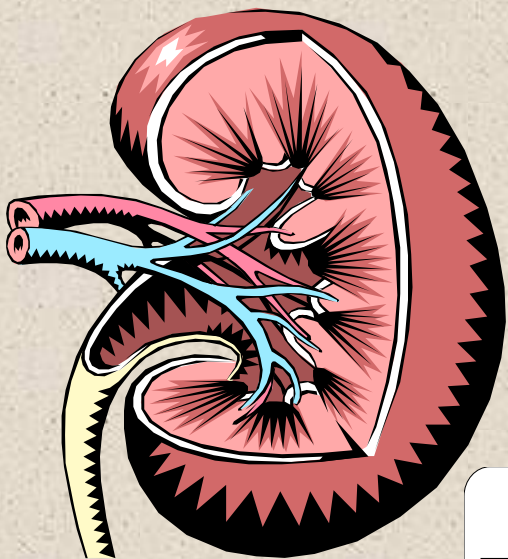
Shockingly, incidents nearly identical to this reportedly have occurred right here in the United States, including one at a New York City hospital.



**Hospital  
accidentally  
hooks kidney patient  
up to air conditioner!**

SCREW-UP





# Atopic Dermatitis

“Atopy” - A heritable clinical state associated with dermatitis, asthma, and allergic rhinitis

Definition - Usually chronic pruritic inflammation of the epidermis and dermis, often occurring in association with a personal or family history of hay fever, asthma, allergic rhinitis or Atopic dermatitis.

# Atopic Dermatitis

## (Epidemiology)

- Age of onset < 1 yr. old (over 60%)
- Strong family history
- Coexistent Atopic Pathology
- Often Seasonal
- Multiple exacerbating factors
- Adult onset often coincides with puberty onset
- Triphasic Age Distribution:
  - infant
  - childhood
  - Adult (12 yrs -->)

PRURITUS ALWAYS PRESENT



SCRATCHING



EXCORIATION



INFLAMMATION





# Management

- RESTORE S.C. BARRIER
  - Emollients
  - Avoid irritants (soap/detergent)
  - Decreased washing
- AVOID SKIN DAMAGE
  - Antipruritic agents
  - Sleep induction
- PREVENT LOCAL INFLAMMATION
  - Topical corticosteroids
    - G 5 for red/scaling
    - G 1-2 for lichenification
  - Systemic corticosteroids
    - Only for severity
- PREVENT SUPERINFX
  - Abx vs Staph/Strep
- REMOVE PRECIPITATORS
  - Stress reduction
  - Environment modification
- HALT FURTHER CHANGES
  - Phototherapy/Cyclosporine/Tar

PHYSICAL  
EXAM  
CHARACTERISTICS  
OF  
ATOPIC DERMATITIS

# Erythema / Excoriations of Flexural Areas Common





Excoriations lead to edema and  
superinfection with Staph





# Confluent Papules Forming Plaques in Antecubital regions



Linear excoriations and diffuse  
erythematous patches  
(note sparing of protected area under  
bra)



Confluent erythema / edema /  
scaling

Increased periorbital findings  
secondary to chronic manipulation





# Superinfection prominent comorbidity secondary to trauma





# Prominent Flexural Findings



Flexural involvement but  
scaling/plaquelike appearance -  
easily confused with Psoriasis

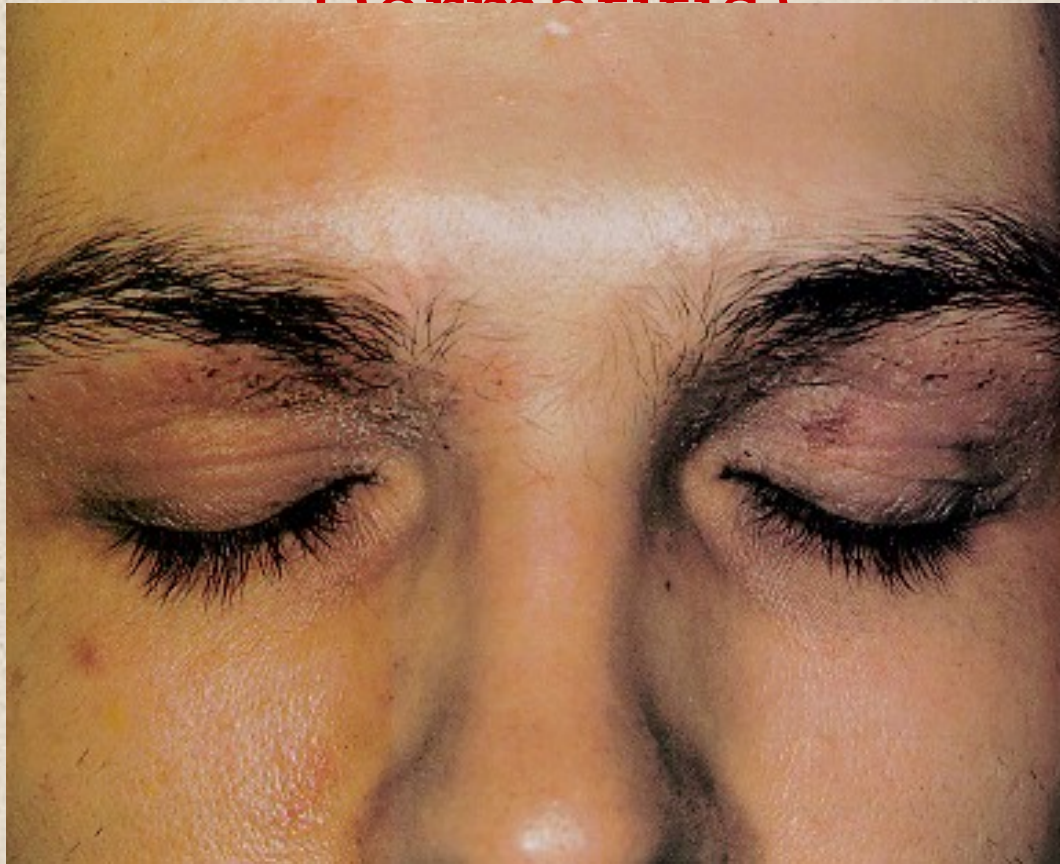


# Prominent Fissures of Palms





Chronic manipulation secondary to  
local sxs  
(Prominent periorbital involvement  
should peak suspicion of Atopic  
Dermatitis)





Alopecia can be prominent finding  
(African/Caribbean ancestry poses  
increased risk)



# Hand Predilection

(Extensive Lichenification demonstrated)



# PULMONARY / CRITICAL CARE UPDATE!



# How long you can hold your breath reveals how long you will live

HOLDING your breath will reveal your ability to quit smoking as well as your longevity.

By ALEX MORGAN / *Weekly World News*

MINNEAPOLIS, Minn. — Now there's an easy test to determine exactly how long you'll live — just by seeing how long you can hold your breath!

The 14-year research tested more than 6,200 men and women of all ages and proved that the ability to hold your breath for a long time is a sure sign of longevity. But more than that, the study showed you can pinpoint the age you will die with the simple test.

"This test proved to be much more valuable than we thought it would ever be," said Dr. Herb Santurm, who started the project back in 1984. "We were quite surprised at just how accurately holding your breath can predict your life span."

**... says  
medical expert!**

## Learn your life span with this easy chart!

Use this simple chart to determine how long you'll live.

- 1 Get a stopwatch or any watch with a second hand.
- 2 Hold your breath as long as you can while timing yourself with the watch.
- 3 Find the number of seconds in the vertical line on the left of the chart indicating how long you held your breath.
- 4 Find your age group at the top of the chart.
- 5 Draw a line down from your age group to meet the row indicating how long you can hold your breath.
- 6 The number at the intersection will indicate HOW MANY MORE YEARS YOU CAN EXPECT TO LIVE.



<b>AGE GROUP</b> ▶		<b>17-26</b>	<b>27-34</b>	<b>34-46</b>	<b>47-53</b>	<b>54-68</b>
<b>NO. OF SECONDS YOU CAN HOLD YOUR BREATH</b>	<b>30-35</b> SEC.	41	27	18	16	11
	<b>36-45</b> SEC.	43	28	20	18	14
	<b>46-50</b> SEC.	44	31	22	21	17
	<b>51-55</b> SEC.	46	33	26	24	22
	<b>56-60</b> SEC.	48	39	30	28	24
	<b>61-65</b> SEC.	50	41	37	34	28
	<b>66-70</b> SEC.	52	46	40	37	30
	<b>71-75</b> SEC.	57	53	46	40	34
	<b>76- &amp; UP</b> SEC.	64	58	50	42	38

**HOW MANY MORE YEARS YOU CAN EXPECT TO LIVE**

# Nummular (Discoïd) Eczema

Definition: A chronic, pruritic, inflammatory dermatitis occurring in the form of coin-shaped plaques composed of grouped small papules and vesicles on an erythematous base.

# Nummular Eczema

## Epidemiology / History

- Age Predilection  
= middle age
- Obesity increases incidence
- Winter > Summer
- Often misdiagnosed and mistreated
- Can parallel concurrent Atopic physiology
- Chronic / Indolent course in majority of cases

# Management

- Skin Hydration
  - Moisturizing soaps / lotions / petrolatum
- Topical Corticosteroids
  - Class 1 or 2 until resolution
- Antibiotics as needed
- TAR / Phototherapy in refractory cases



NUMMULAR  
ECZEMA  
PHYSICAL  
EXAM  
FINDINGS

# Well Circumscribed Lesions



# Coin Shaped Lesions With Surface Scaling



# Small Papules Coalesce to Form Prominent Plaques





# Coin Shaped Plaques / Superficial Scaling



# Erythematous Base / Excoriations (Pruritus can be prominent)



# Hypopigmentation secondary to repeated trauma





# Seborrheic Dermatitis

Definition: A common dermatosis characterized by redness and scaling occurring in regions where the sebaceous glands are most active.



# Seborrheic Dermatitis

## Mechanism of Action

Unknown etiology. However, the involvement of *Pityrosporon Ovale* (a lipophilic yeast) with subsequent inflammatory response is postulated secondary to frequent biopsy positivity and disease response to antifungals.

# Seborrheic Dermatitis

## Epidemiology / History

- Striatum  
Corneum  
exfoliation leads  
to dry/greasy  
yellow scales
- Often strong  
Family Hx
- Bimodal Age Peak  
(infantile / adult)
- Notable response  
to UV light
- Exacerbations  
related to:
  - Stress
  - Seasonal Changes
  - Increased  
Perspiration

# Management

- ACUTE MGMT:
  - **Frequent washing of affected areas**
    - Selenium / Zinc pyrithidone based agents
    - Ketoconazole 2% shampoos
  - **Topical Steroid**
    - Short duration therapy secondary to complications
    - Refractory sx
  - **Scalp Lesions are difficult - oil / occlusion**
- CHRONIC / MAINTENANCE:
  - **Ketoconazole 2% soln**

PHYSICAL  
EXAMINATION  
CHARACTERISTICS  
OF  
SEBORRHEIC  
DERMATITIS



# Yellowish-Red, Scaling Papules



# Greasy Lesions Approximating Increased Sebaceous Gland Activity



# Red / Scaly Lesions With Predilection for Body Folds



# Prominent Involvement With Coexistent Facial Hair



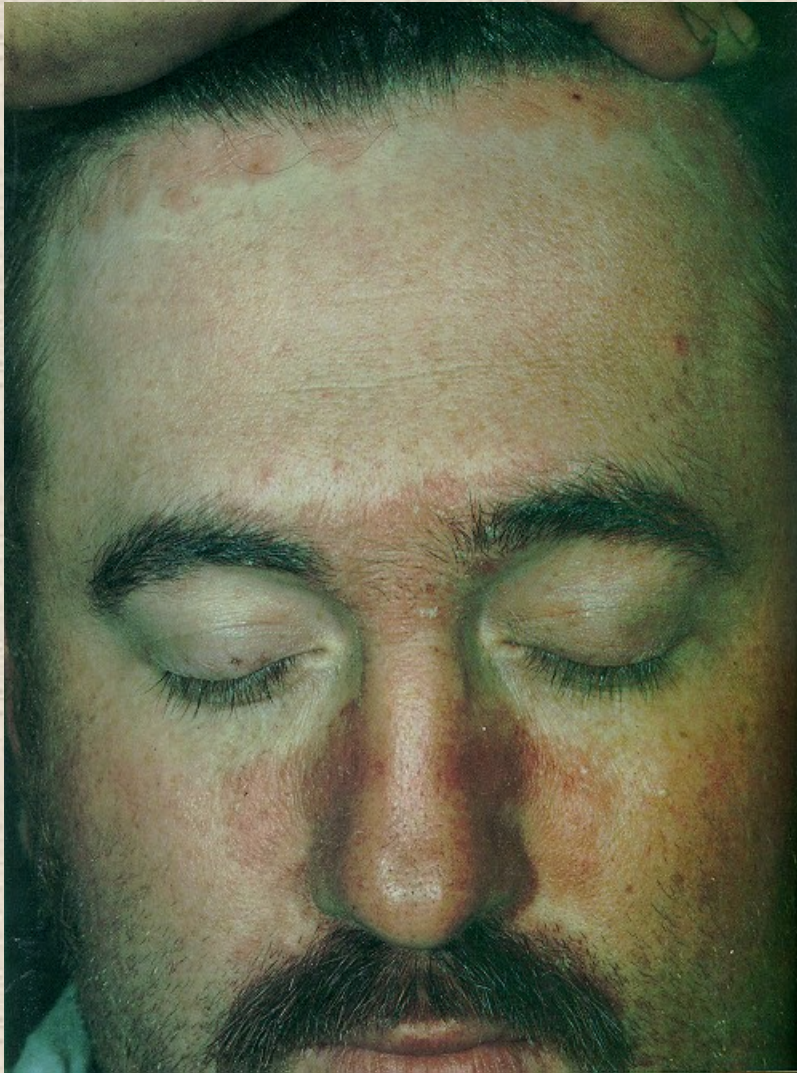


# Frequent Trunk Involvement



# Genitalia Involvement Can Mimic Other Erythematous Dermatologic Disease (Maceration of Typical Findings)





## Unifying Picture

- Greasy - Dry Spectrum of Disease
- Sharp margins
- Scalp / Eyebrows
- Facial Hair
- Glabellar



# Prominent Involvement in HIV/Parkinson's Dz (Pt with HIV and classic SD findings)





# Pityriasis Rosea

Definition: An acute, self limited, exanthematous eruption affecting young adults which evolves rapidly after an initial patch which heralds the attack. Disease possibly related to viral infx as second attacks rare and epidemic outbreaks have been reported.

# Pityriasis Rosea

## Epidemiology / History

- Female : Male ratio = 1.5:1
- Age Predilection from 10-35
- Herald Patch Precedes Eruptive Phase by 1-2 Weeks in 80% of Patients
- Symptom Duration = 1-3 mos to resolution
- Cool Weather Predilection
  - Autumn>Spring>Winter>>>Summer

# Management

- No specific therapy required
- Local Sx control
  - Pruritus / Infx
- ? Improvement with UV light



# Herald Patch

(2-10 cm bright red, slightly raised plaque with fine peripheral  
collarette)





# Herald Patch

(Usually Solitary / Predilection for Trunk / Can Persist for 2-3 Weeks)



# Herald Patch

Fine desquamative collarete visible



# Exanthem

Raised Papules / Plaques  
Varying Size/Color (Pink-Red)

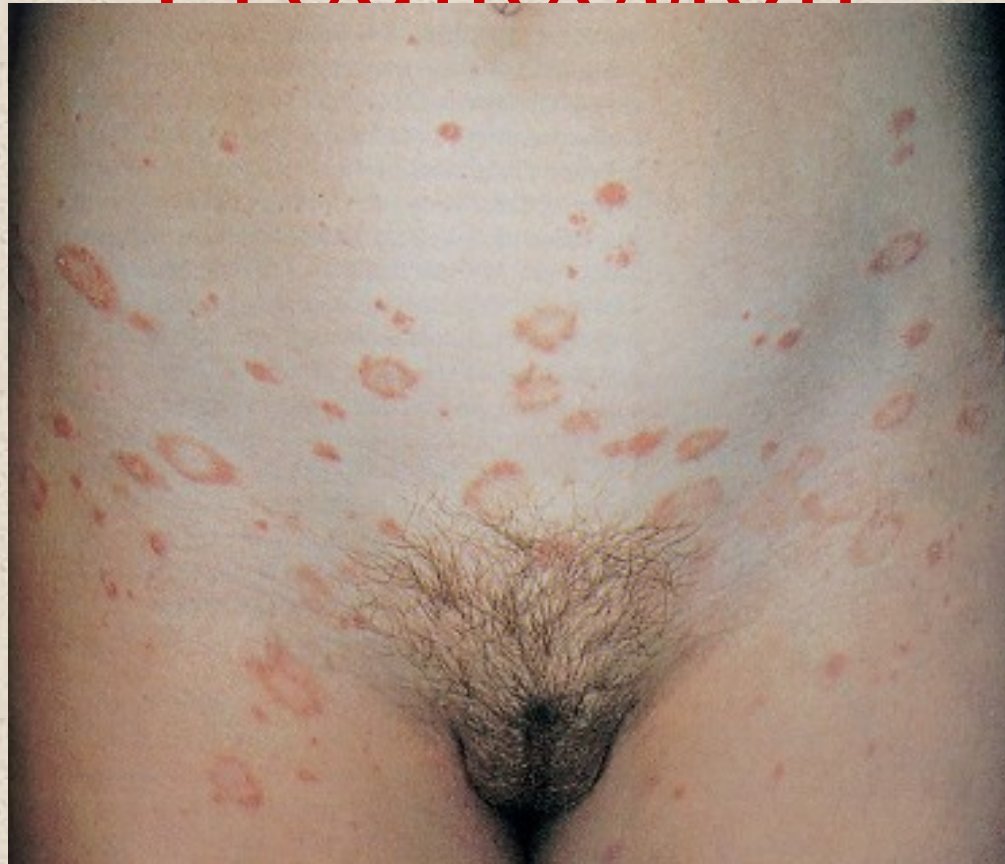


# Papules Demonstrate Residual Hyperpigmentation in Dark Skinned Individuals





# Well Demarcated / Collared Lesions with Lower Abdomen Predilection



# “T-shirt and Shorts Distribution” (Relative Sparing of Upper Chest)



# Confluence of Lesions In More Severe Presentations Leading to Erythroderma Picture





# News From The Infectious Disease Department



**WORLD  
EXCLUSIVE!**

By **TANYA BRODER**  
Weekly World News

# DEADLY MARS ROCK VIRUS INFECTS FOUR RESEARCHERS!

HIGH-POWERED MICRO-  
SCOPE captured features  
of Martian life-form's head  
in stunning detail!



Trovan found to be  
only effective  
antimicrobial  
agent!!!

This lecture sponsored in part by the Pfizer Corporation.